

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Go Watanabe;
Yoshiki Sawa; and Satoshi Taketani

Examiner: Sarah K. Webb

Serial No.: 10/550,819

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Title: SURGICAL HOLDER FOR A BLOOD VESSEL

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Commissioner for Patents
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REPLY BRIEF

Appellant submits this brief pursuant to 37 C.F.R. §41.41, replying to the Examiner's Answer filed on July 6, 2011. Appellant requests that the Appeal be sustained in favor of Appellant.

The Commissioner is hereby authorized to charge any fees which may be required for the filing of this Reply Brief, or credit any overpayment to Deposit Account No. 19-2814. This does not authorize payment of the issue fee.

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I. STATUS OF CLAIMS.

Claims 1-3, 5-7, 9, 10, 12-14, and 18-29 are pending in this application, are subject to this appeal, and are reproduced in the Claims Appendix. Claims 4, 8, 11, and 15-17 are cancelled. The pending claims stand finally rejected as follows:

- (1) Claims 1, 5-7, 9, 10, 12-14, and 18-19 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,234,448 ("*Porat*").
- (2) Claim 2 and 3 are rejected as being unpatentable under 35 U.S.C. § 103(a) over *Porat* in view of U.S. Patent Application Pub. No. 2002/0177863 ("*Mandel*").

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II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL.

The issues for consideration in this appeal are:

- A. Whether the Examiner erred in rejecting claims 1, 5-7, 9, 10, 12-14, and 18-19 under 35 U.S.C. § 102(b) as being anticipated by *Porat*.
- B. Whether the Examiner erred in rejecting claims Claim 2 and 3 as being unpatentable under 35 U.S.C. § 103(a) over *Porat* in view of *Mandel*.

III. ARGUMENT.

A. Rejections under 35 U.S.C §102 Over Porat.

In the outstanding Office Action, and again in the Examiner's Answer, the Examiner alleges that the "U-shaped opening (56)" in Porat's device "has a pair of elongated edge portions (60) that are capable of being inserted into a tubular tissue," thus corresponding to the claimed "elongated edge portions" which together define the "opening" in the "first grasping plate" of the present invention. However, as Explained in Section VII.A of Appellant's Brief, Porat does not teach or even suggest that the "portion (60)" therein is "configured to be inserted into a tube of the tubular tissue for grasping the tubular tissue," as required by the claimed "elongated edge portions."

Rather, according to Porat, the portion (60) in the reference device is called a "catch arm," which has at least one catch member (62) arranged thereon for engaging with a latching means (53), in order that the device ("clamp (10)") can pinch a tubing (90) about its external circumferential surface. *See, e.g.*, Figs. 2-9 and the associated description at column 9, lines 24-35 and column 10, lines 57-63 provided by Porat. As such, it is still not evident how the "catch arm (60)" in Porat's clamp device would be "capable of" inserting into a tubular tissue for grasping the tubular tissue, like the claimed "elongated edge portion," nor does the Examiner address this issue anywhere in the Examiner's Answer.

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Furthermore, the presence of a "catch member (62)" in the Porat's clamp is designed to be flat and sharp and thus would be incapable of being inserted into a tube of the tubular tissue without any destructive effect to the tube.

Additionally, the Examiner asserts that a "curved cut-out (36)" in the "first plate (30)" and a corresponding curved "portion (26)" in the "second plate (20)" forms a tubular tissue "grasping space (44)." However, this feature clearly does not provide the feature of "grasping" the tubular tissue. As clearly shown in Figures 7(B) and (C), the tube is not supported by the alleged "grasping space," it is not apparent how said space can be grasping the tube, as claimed by the "recessed portion" of the claimed invention.

Moreover, Porat discloses that the "upper arms (20) and (30)" are joined by a "resilient base (40)." See, e.g., Figs. 2-7 and column 5, lines 58-65 provided by Porat. The grasping plates of the claimed invention, by contrast, are connected by "manipulation member." See, e.g., Figs. 5-7 of the Application.

In addition, the claimed invention is directed to grasp a "tubular tissue" whereas Porat teaches clamping of a tube which is not a tissue. This is clearly evident in at least the "Background" and "Prior Art" sections of Porat, which describe pinch clamp devices for use in flexible tubing, particularly to and from patients.

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In fact, since Porat's expressly-stated objective is to "provide a pinch clamping device which may be laterally mounted onto a length of the tubing" (column 2, lines 13-15), one skilled in the art would not be remotely motivated to modify Porat's pinch clamp for grasping a tubular tissue by inserting a part thereof into the tubular tissue, as currently claimed.

In the Examiner's Answer, the Examiner does not substantively address Porat's failure to disclose the limitations of the rejected claims. Instead, as on page 8 of the Examiner's Answer, the Examiner again improperly ignores valid claim limitations and relies on mere conjecture to support the rejections under 35 U.S.C. §102. *See Section VII.A of Appellant's brief.*

Thus, because Porat does not disclose each and every limitation of any of claims 1, 5-7, 9-10, 12-14 and 18-29, Porat does not anticipate the claims and the rejections under 35 U.S.C. §102 should be withdrawn.

B. Rejections under 35 U.S.C §103 Over Porat in view of Mandel.

The Office Action rejects claims 2 and 3 under 35 U.S.C. § 103(a) as being obvious over Porat and in view of Mandel. As explained in Section VII.B of Appellant's Brief, neither Porat nor Mandel (whether alone or in combination) disclose or suggest the limitations of claims 2 or 3.

As discussed above and in Section VII.A of Appellant's Brief, Porat does not disclose the limitations of independent claim 1 (upon which claims 2 and 3 ultimately depend), and nothing in Mandel supplies that which is lacking in Porat. Specifically, as explained in Section VII.B of

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Appellant's Brief, Mandel merely pertains to a chevron-shaped ligating clip which bears little structural resemblance with the claimed subject matter, or to Porat's pinch clamp for that matter. *See, e.g.*, Mandel, Figs. 1 and 2. Moreover, it appears that the Examiner has only relied on Mandel for the purported teaching of an antimicrobial and/or antibiotic coating to the clip surfaces, namely the features recited in pending claims 2 and 3. Thus, the combination of Porat and Mandel proposed by the Examiner still fails to disclose or suggest the limitations of either claims 2 or 3.

The novel structural features of the claimed invention provide significant advantages over the cited art. In particular, the claimed invention provides multiple ways to safely grasp a tubular tissue, including: (1) grasping a tubular tissue by inserting an "elongated end portion" of a first grasping plate into said tubular tissue and further moving the second grasping plate close to the first grasping plate to grasp the tissue more stably (*e.g.*, Example 4 at [00141] in the specification and Figure 11); and (2) using the retaining portion of the first grasping plate and the covering portion of the second grasping plate to grasp a tubular tissue at one point, and using the tissue grasping space formed by the recessed portion of the first grasping plate and the curved portion of the second grasping plate at another point, to stably grasp the tubular tissue (*e.g.*, Example 3 at [00139] in the specification and Figure 10). Neither Porat nor Mandel (alone or in combination) disclose or even suggest the claimed surgical holder with these features.

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In view of the foregoing, Appellant asserts that the claimed invention is not anticipated or rendered obvious by the cited references.

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IV. CONCLUSION.

For the foregoing reasons, Appellant respectfully submits that the rejections of the claims should be reversed and claims 24-33 and 39-53 allowed.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Previously presented) A surgical holder comprising a grasping member for grasping a tubular tissue, a manipulation member for manipulating the grasping member, and a connection portion with one end connected to the manipulation member, wherein:

the grasping member includes a first grasping plate, and a second grasping plate provided so as to oppose the first grasping plate in a movable manner so that they are able to become closer to each other or more distanced from each other;

the first grasping plate includes a retaining portion having an opening which is opened toward a first outer side of the first grasping plate and a supporting portion having a recessed portion which extends towards a second outer side of the first grasping plate, the first outer side being opposed to the second outer side and the opening being of a U-shape or substantially a U-shape, the retaining portion includes two edge portions each having an elongated end portion, the two edge portions together forming the peripheral portion of the opening to define the shape of the opening, and the end portion of the edge portion having a length and being configured to be inserted into a tube of the tubular tissue for grasping the tubular tissue,

the second grasping plate includes a covering portion formed so as to cover an entire surface or a part of the opening of the first grasping plate, a non-covering portion which does not cover the first grasping plate, and a fixing portion having a curved portion, the covering portion being provided in one end of the second grasping plate and the curved portion being provided in the other end of the second grasping plate,

the curved portion opposing the recessed portion to form a generally tubular tissue grasping space for grasping the tubular tissue when the first grasping plate and the second grasping plate are positioned so as to oppose one another,

a first grasping portion which can grasp a part of the tubular tissue between the retaining portion of the first grasping plate and the covering portion of the second grasping plate are provided in

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one end portion of the grasping member, and the opening exposing another part of the tissue when a part of the tubular tissue is grasped by the first grasping portion; and a second grasping portion which can form the tissue grasping space for the tubular tissue between the recessed portion of the first grasping plate and the curved portion of the second grasping plate is provided in another end portion of the grasping member.

2. (Previously Presented) A surgical holder according to claim 1, wherein a tissue protection material is attached to at least one of: a side of the first grasping plate which opposes the second grasping plate, or a side of the second grasping plate which opposes the first grasping plate.

3. (Original) A surgical holder according to claim 2, wherein the tissue protection material is permeated with medicines.

4. (Canceled).

5. (Previously presented) A surgical holder comprising a grasping member for grasping a tubular tissue, a manipulation member for manipulating the grasping member, and a connection portion with one end connected to the manipulation member and the other end provided with a fixing tool, wherein:

the grasping member includes a first grasping plate, and

a second grasping plate provided so as to oppose the first grasping plate in a movable manner so that they are able to become closer to each other or more distanced from each other;

the grasping member is formed into a rectangular shape with the manipulation member elongated from a side thereof;

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a first grasping portion which can grasp a part of the tubular tissue between the first grasping plate and the second grasping plate, and an opening which is provided in the vicinity of the first grasping portion and exposes another part of the tissue are provided in one end portion of the grasping member, the opening being opened at a first outer side of the first grasping portion and the opening being of a U-shape or substantially a U-shape;

the first grasping plate includes two edge portions each having an elongated end portion, the two edge portions together forming the peripheral portion of the opening to define the shape of the opening, and the end portion of the edge portion having a length and being configured to be inserted into a tube of the tubular tissue for grasping the tubular tissue,

a second grasping portion which can form a generally tubular tissue grasping space for the tubular tissue between the first grasping plate and the second grasping plate is provided in another end portion of the grasping member, the tissue grasping space and the opening being positioned at opposing ends on one axis of the grasping member.

6. (Previously presented) A surgical holder comprising a grasping member for grasping a tubular tissue, a manipulation member for manipulating the grasping member, and a connection portion connected to the manipulation member, wherein:

the grasping member includes a first grasping plate and a second grasping plate provided so as to oppose the first grasping plate in a movable manner so that they are able to become closer to each other or more distanced from each other;

the first grasping plate includes a retaining portion having an opening of a U-shape or substantially a U-shape, and a supporting portion having a recessed portion, the opening being provided in a first end of the first grasping plate and the recessed portion being provided in a second end of the first grasping plate, the first and second ends of the first grasping plate being opposed to each other;

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the first grasping plate includes two edge portions each having an elongated end portion, the two edge portions together forming the peripheral portion of the opening to defines the shape of the opening, the end portion of the edge portion having a length and being configured to be inserted into a tube of the tubular tissue for grasping the tubular tissue, and the second grasping plate includes a covering portion formed to cover an entire surface or a part of the opening of the first grasping plate, a non-covering portion which does not cover the first grasping plate, and a fixing portion having a curved portion, the curved portion opposing the recessed portion to form a generally tubular tissue grasping space for grasping the tubular tissue when the first grasping plate and the second grasping plate are positioned so as to oppose one another.

7. (Previously presented) A surgical holder according to claim 6, wherein a surrounding tissue of the tubular tissue is grasped by the edged portion and the covering portion of the second grasping plate.

8. (Canceled).

9. (Previously presented) A surgical holder according to claim 6, wherein the tubular tissue is grasped with one point of the tubular tissue being grasped by the retaining portion of the first grasping plate and the covering portion of the second grasping plate, and another point being grasped by the tissue grasping space formed by the recessed portion of the first grasping plate and the curved portion of the second grasping plate.

10. (Previously presented) A surgical holder according to claim 6, wherein the edge portion is inserted into a tube of the tubular tissue to grasp the tubular tissue.

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11. (Canceled).

12. (Previously presented) A surgical holder according to claim 1, wherein the recessed portion provided is recessed toward a thickness of the first grasping plate.

13. (Previously presented) A surgical holder according to claim 5, wherein the generally tubular tissue grasping space is formed by a recessed portion on the first grasping plate and a curved portion on the second grasping plate, when the first grasping plate and the second grasping plate are positioned so as to oppose one another, and the recessed portion provided is recessed toward a thickness of the first grasping plate.

14. (Previously presented) A surgical holder according to claim 6, wherein the recessed portion provided is recessed toward a thickness of the first grasping plate.

15-17. (Canceled).

18. (Previously presented) A surgical holder according to claim 1, wherein the first grasping plate and the second grasping plate are of flat plate shape, the curved portion is provided on a fixing portion which is provided to extend from the covering portion through an elongated piece, and the non-covering portion of a rectangular shape is formed by an edge of the covering portion, the elongated piece, and the fixing portion.

19. (Previously presented) A surgical holder according to claim 5, wherein the first grasping plate and the second grasping plate are of flat plate shape, the curved portion is provided on a fixing portion which is provided to extend from the covering portion through an elongated piece,

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and the non-covering portion of a rectangular shape is formed by an edge of the covering portion, the elongated piece, and the fixing portion.

20. (Previously presented) A surgical holder according to claim 6, wherein the first grasping plate and the second grasping plate are of flat plate shape, the curved portion is provided on a fixing portion which is provided to extend from the covering portion through an elongated piece, and the non-covering portion of a rectangular shape is formed by an edge of the covering portion, the elongated piece, and the fixing portion.

21. (Previously presented) A surgical holder according to claim 1, wherein the tubular tissue is a blood vessel.

22. (Previously presented) A surgical holder according to claim 5, wherein the tubular tissue is a blood vessel.

23. (Previously presented) A surgical holder according to claim 6, wherein the tubular tissue is a blood vessel.

24. (Previously presented) A surgical holder according to claim 1, wherein the recessed portion provided forms an indentation in a plane defined by the remaining portion of the first grasping plate, and the curved portion is raised relative to the remaining portion of the second grasping plate, to form the generally tubular tissue grasping space with the opposed recessed portion for grasping blood vessels.

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25. (Previously presented) A surgical holder according to claim 5, the generally tubular tissue grasping space is formed by a recessed portion on the first grasping plate and a curved portion on the second grasping plate, when the first grasping plate and the second grasping plate are positioned so as to oppose one another, and wherein the recessed portion provided forms an indentation in a plane defined by the remaining portion of the first grasping plate, and the curved portion is raised relative to the remaining portion of the second grasping plate, to form the generally tubular tissue grasping space with the opposed recessed portion for grasping blood vessels.

26. (Previously Presented) A surgical holder according to claim 6, wherein the recessed portion provided forms an indentation in a plane defined by the remaining portion of the first grasping plate, and the curved portion is raised relative to the remaining portion of the second grasping plate, to form the generally tubular tissue grasping space with the opposed recessed portion for grasping blood vessels.

27. (Previously Presented) A surgical holder according to claim 1, wherein the two elongated edge portions form part of the peripheral portion of the first grasping plate.

28. (Previously Presented) A surgical holder according to claim 5, wherein the two elongated edge portions form part of the peripheral portion of the first grasping plate.

29. (Previously Presented) A surgical holder according to claim 6, wherein the two elongated edge portions form part of the peripheral portion of the first grasping plate.

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EVIDENCE APPENDIX

None.

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RELATED PROCEEDINGS APPENDIX

None.